

**Documents Number** 

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# **Troubleshooting**

#### How to utilize this Guide

Step 1

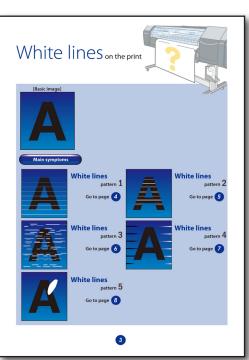
In the Contents, look for a poor image quality symptom that is similar to that of your print.



Step 2

Go to the designated page, and then look for a more similar symptom (pattern). Handle the issue according to the "Solutions".

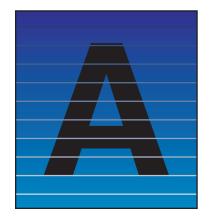
- \* Some symptoms may have several causes. Depending on the situation, apply a combination of the solutions. If the symptom persists, ink matching with media may not be good. Change the media and print.
- \* For more details of each operation in this Guide, refer to the User's Guide.



" P. " in this Guide show the reference pages in the User's Guide.

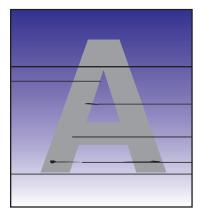
## **Contents**

Choose a poor image quality symptom that is similar to that of your print from below. Refer to the designated page.



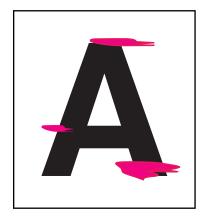
White lines on the print

Go to page 3



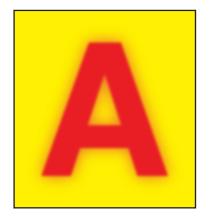
**Dark lines** on the print

Go to page 9



**Stain** on the print

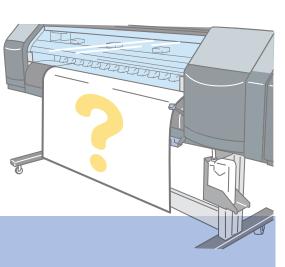
Go to page 14



**Bleeding** on the print

Go to page 19

# White lines on the print







### **Main symptoms**



## **White lines**

pattern 1

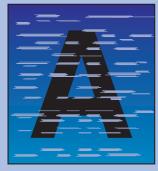
Go to page 4



## **White lines**

pattern 2

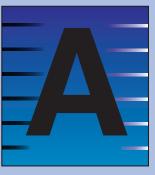
Go to page 5



### **White lines**

pattern 3

Go to page 6



### **White lines**

pattern 4

Go to page 7

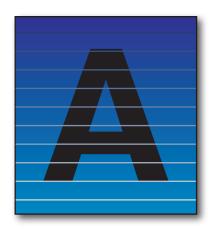




### **White lines**

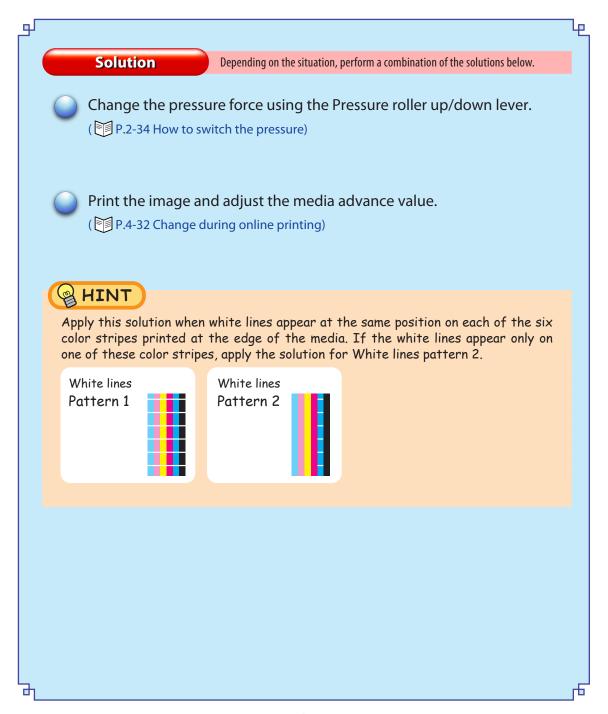
pattern 5

Go to page 8



#### Cause

- The media advance is not properly adjusted.





#### Cause

- Clogged nozzles

#### Solution

Follow the procedures below.

1 Check that there is no dust on the platen, if any, remove it.



Perform the daily maintenance and confirm that the symptom is improved. (P.4-3 Regular Inspection / Maintenance (Daily maintenance))



- Perform the Print head cleaning [NORMAL ALL]. Perform [NOZZLE PRINT] and confirm that the symptom is improved.
  - P.4-19 Print head cleaning, P.4-8 Performing the nozzle print)
- Select [RESEAT PRINTHEAD] on the operation panel and move the carriage. After cleaning the print head nozzle surface, perform [NOZZLE PRINT] and confirm that the symptom is improved.

(P.5-23 Cleaning of Print head surface, P.4-8 Performing the nozzle print)

## HINT

- To clean the print head nozzle surface, wipe the print head surface back and forth lightly, while visually checking, with a Cleaning swab soaked with cap cleaning liquid.
- When print continues with the color stripe [OFF], the above symptom may occur. Normally, print with the color stripe [ON].



#### Cause

- Matching with the media is not good.
- The ink dries fast.
- Ink does not penetrate into the media.

#### Solution

Depending on the situation, perform a combination of the solutions below.



Print the media advance adjustment pattern and adjust the media advance value. ( P.4-28 Media advance value setting procedure)

Raise or lower the heater temperature.

(P.2-41 Changing temperature using the heater control menu)

Set the temperature of the front heater, print heater, and rear heater to be within the range of  $\pm 5$ °C of 45°C, 40°C and 45°C, respectively. Be careful not to lose the temperature balance.

Print in the print mode [QUALITY] (P.3-25 PRINT MODE)

Set the print mode by the RIP software.

In the RIP software setting, choose the mode to increase paths ("High Quality", "PASS", "Quality", etc.) and then print.\*

Print in the print direction [UNIDIR]. ( P.3-26 PRINT DIRECTION)

Set the print direction by the RIP software.

In the RIP software setting, choose the mode for unidirectional print ("Unidirectional", "Outward", etc.) and then print.\*

Print in the print mode [DENSITY] (P) P.3-25 PRINT MODE)

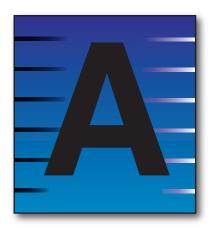
Set the print mode by the RIP software.

In the RIP software setting, choose the mode to increase the ink amount ("Double", etc.) and then print.\*

\*To change the settings, contact the RIP software sales agency.

Print using the known good media that has been used in the past.

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# White lines pattern 4

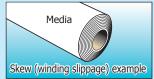
#### Cause

- The media is slantingly advanced.



Depending on the situation, perform a combination of the solutions below.

Check that the media on the roll is straight. If is not, replace it.





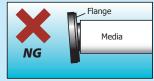
Check that the media is traveling straight off the roll.

If not, adjust the position of the flange holder or shift the media right or left by raising the Pressure roller up/down lever to set the media vertically. In addition, when using the take-up reel unit, adjust the position of flange at the take-up side or re-set the media.





Confirm that the media is loaded straight against the flange.

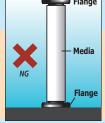




If the media is under the entire pressure roller, release the pressure force of pressure roller. (P.2-35 How to use the lifter)



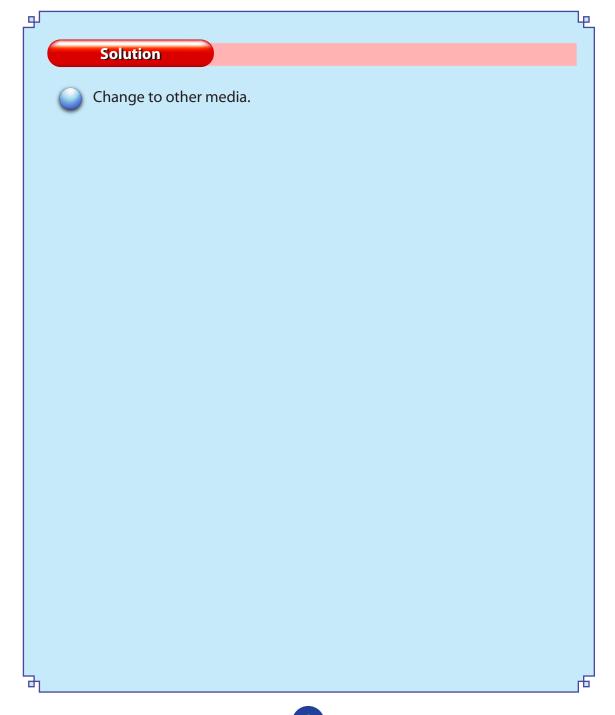
If the media with the flange installed is stood on end, the media alignment on the roll will become the source of a possible problem.



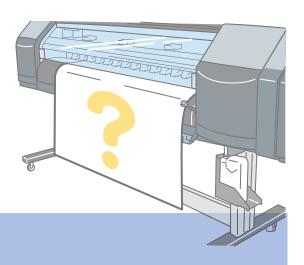


#### Cause

- The media is coated unevenly.



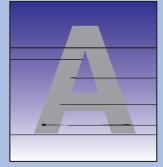
# Dark lines on the print



#### [Basic image]



## Main symptoms



## **Dark lines**

pattern 1

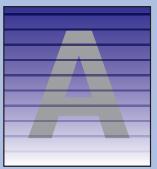
Go to page 10



## **Dark lines**

pattern 2

Go to page 11



## **Dark lines**

pattern 3

Go to page 12



### **Dark lines**

pattern 4

Refer to the solutions for White lines pattern 4.

Go to page 7

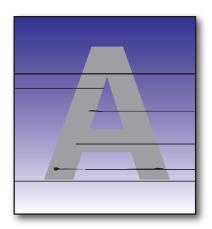


# **Dark lines**

pattern 5

Go to page 13





#### Cause

- The area around the Print head is stained.

Solution

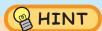
Depending on the situation, perform a combination of the solutions below.

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- 1. Select [RESEAT PRINTHEAD] on the operation panel and then clean the surface of Carriage base. (P.4-16 Cleaning the Carriage base)
- 2. Then clean the Head guard. (P.4-17 Clean the Head guard)

Raise the height of Print head. (PI) P.2-44 Change the Print head height)

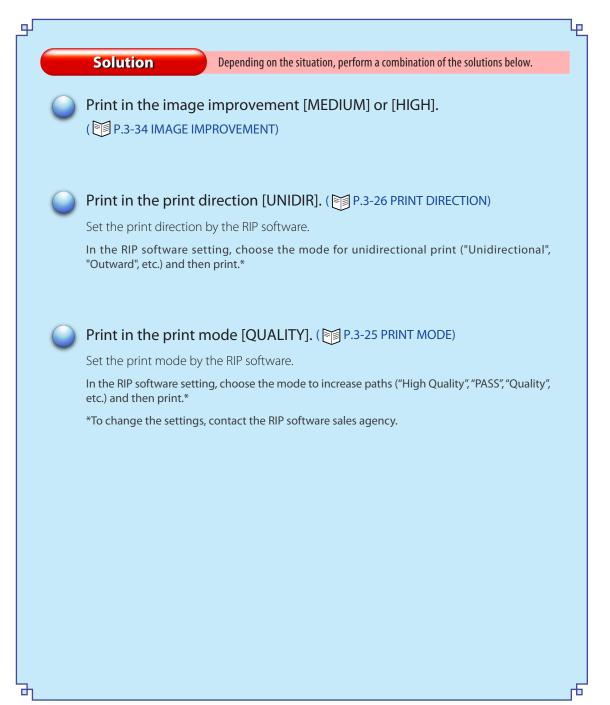


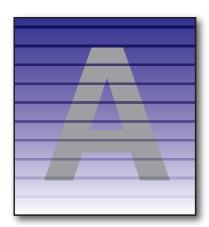
In the above cleaning, remove debris (lint, etc.) adhering to the bottom surface of the carriage with a Cleaning swab or soft cloth soaked with cap cleaning liquid.



#### Cause

- Different order of ink colors due to bi-direction printing

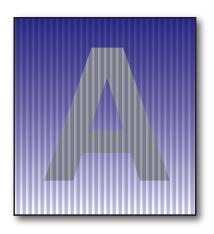




#### Cause

- The media advance is not properly adjusted.
- The ink dries slowly.

# Solution Depending on the situation, perform a combination of the solutions below. Print in the image improvement [MEDIUM] or [HIGH]. ( P.3-34 IMAGE IMPROVEMENT) Change the pressure force using the Pressure roller up/down lever. (P.2-34 How to switch the pressure) Print the image and adjust the media advance value. (P.4-32 Change during online printing) Raise the heater temperature. P.2-41 Changing temperature using the heater control menu) Raise the temperature of the front heater, print heater and rear heater by 5°C from 45°C, 40°C and 45°C respectively. Be careful not to lose the temperature balance. Print in the print direction [UNIDIR]. ( P.3-26 PRINT DIRECTION) Set the print direction by the RIP software. In the RIP software setting, choose the mode for unidirectional print ("Unidirectional", "Outward", etc.) and then print.\* Print in the print mode [QUALITY]. (P.3-25 PRINT MODE) Set the print mode by the RIP software. In the RIP software setting, choose the mode to increase paths ("High Quality", "PASS", "Quality", etc.) and then print.\* \*To change the settings, contact the RIP software sales agency.



#### Cause

- Ink does not penetrate into media due to its surface condition
- The small error of the ink droplet position on the media

#### Solution

Depending on the situation, perform a combination of the solutions below.



Print in the image gradient [HIGHLIGHT2].

( P.3-31 IMAGE GRADIENT)



Change the print direction. (PI) P.3-26 PRINT DIRECTION)

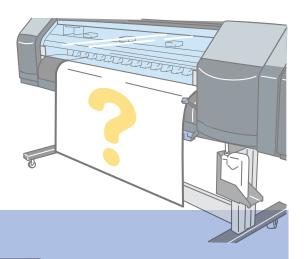
Change the print direction from [BIDIR] to [UNIDIR], or from [UNIDIR] to [BIDIR] and then print.

Set the print direction by the RIP software.

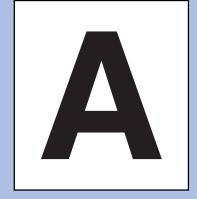
In the RIP software setting, choose the mode for unidirectional print ("Unidirectional", "Outward", etc.) and then print.\*

\*To change the settings, contact the RIP software sales agency.

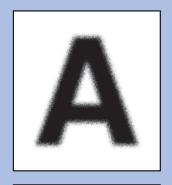
# $Stain \ {\tt on \ the \ print}$



[Basic image]

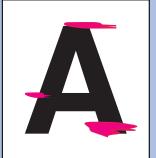


Main symptoms

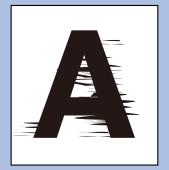


Stain pattern 1

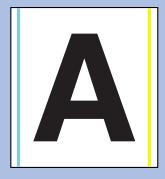
Go to page 15



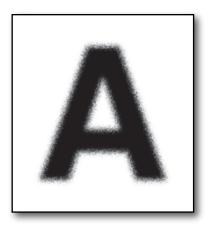
Stain pattern 2
Go to page 16



Stain pattern 3
Go to page 17



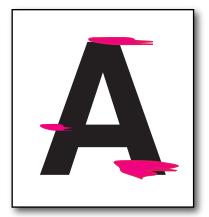
Stain pattern 4
Go to page 18



#### Cause

- Ink spray

Solution Depending on the situation, perform a combination of the solutions below. Print in the image gradient [HIGHLIGHT1] or [HIGHLIGHT2]. (P.3-31 IMAGE GRADIENT) Check that the Print head height is at [NORMAL] and then confirm that the symptom is solved. (P.2-44 Change the Print head height) Perform the daily maintenance and confirm that the symptom is improved. ( P.4-3 Regular Inspection / Maintenance (Daily maintenance)) Perform the Print head cleaning [NORMAL ALL]. Perform [NOZZLE PRINT] and confirm that the symptom is improved. P.4-19 Print head cleaning, P.4-8 Performing the nozzle print) Check the environment temperature. Use the printer within the room temperatures of 20 to 25°C. Replace the media with a media that has been used up to now. HINT After switching IMAGE GRADIENT, be sure to adjust the bi-direction position of Print head. (See page 22 of this Guide)



#### Cause

- Ink drooling



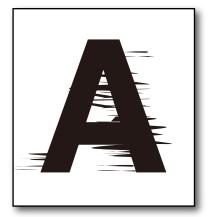
Follow the procedures below.

\*Clean the media edge guards when ink accumulated on them.

- Check that no wrinkles or rising exists on the media or that the media is slantingly set. Set the media again.
- $\stackrel{\textstyle \nabla}{\ \ \ \ }$  Refer to the solutions for White lines pattern 4.
- Check that the Print head height is at [HIGH] and then confirm that the symptom is improved. ( P.2-44 Change the Print head height)
- Perform the daily maintenance and confirm that the symptom is improved. (Paily P.4-3 Regular Inspection / Maintenance (Daily maintenance))
- Perform the Print head cleaning [NORMAL ALL]. Perform [NOZZLE PRINT] and confirm that the symptom is improved.
- P.4-19 Print head cleaning, P.4-8 Performing the nozzle print)
- Select [RESEAT PRINTHEAD] on the operation panel and move the carriage. After cleaning the print head nozzle surface, perform [NOZZLE PRINT] and confirm that the symptom is improved.
  - P.5-23 Cleaning of Print head surface, P.4-8 Performing the nozzle print)

# HINT

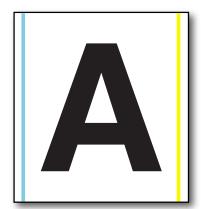
- To clean the print head nozzle surface, wipe the print head surface back and forth lightly, while visually checking, with a Cleaning swab soaked with cap cleaning liquid.
- When print continues with the color stripe [OFF], the above symptom may occur. Normally, print with the color stripe [ON].



#### Cause

- Print head scratched by media (wrinkled media)

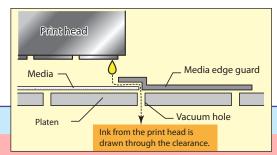
ю Solution Depending on the situation, perform a combination of the solutions below. Load the media again. Check that the head securing screws are not loosened. (P.2-44 Change the Print head height) Raise the heater temperature. P.2-41 Changing temperature using the heater control menu) Be careful not to wrinkle the media. Raise the height of the Print head. (P) P.2-44 Change the Print head height) Check the environment temperature. Use the printer within the room temperature of 20 to 25°C and the humidity of 30 to 70%. If the media is under the entire pressure roller, or if wrinkles occur in a specified position, release the pressure force of pressure roller. (P.2-35 How to use the lifter) Replace the media. HINT Also perform the solution for Dark lines pattern 1 on page 10 of this Guide.



#### Cause

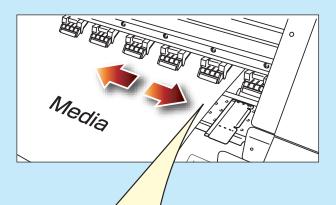
 The left or right edge of media locates near the vacuum hole.

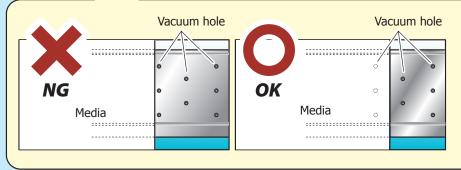
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#### Solution

Shift the media so that the contact of edge of media on the platen to the media edge guard does not locate near the vacuum.

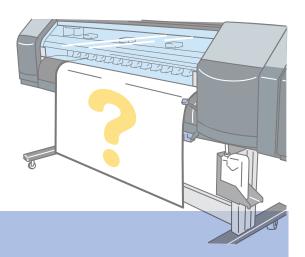




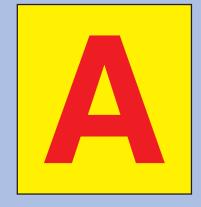


The above stain pattern is explained with yellow ink. Depending on the situation, the stain may caused by cyan or magenta ink.

# Bleeding on the print



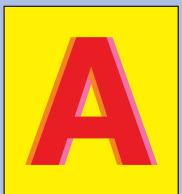
[Basic image]



**Main symptoms** 



Bleeding pattern 1
Go to page 20



Bleeding pattern 2
Go to page 21



# Bleeding pattern 1

#### Cause

- The ink dries slowly.
- Too much ink

#### Solution

Depending on the situation, perform a combination of the solutions below.



Raise the heater temperature.

P.2-41 Changing temperature using the heater control menu)

Raise the temperature of the front heater, print heater and rear heater by 5°C from 45°C, 40°C and 45°C, respectively. Be careful not to lose the temperature balance.



Print in the image gradient [HIGHLIGHT1] or [HIGHLIGHT2].

(P.3-31 IMAGE GRADIENT)



Print in the print direction [UNIDIR] or in the print mode [QUALITY].



Set the print direction or mode by the RIP software.

In the RIP software setting, choose the mode for unidirectional print ("Unidirectional", "Outward", etc.) or the mode to increase paths ("High Quality", "PASS", "Quality", etc.) and then print.



When printing in the print mode [DENSITY], change it to [QUALITY].

(P.3-25 PRINT MODE)

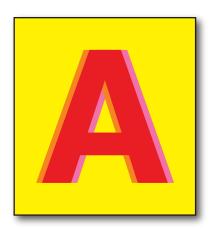
Set the print mode by the RIP software.

In the RIP software setting, cancel the mode to increase the ink amount ("default", "normal", etc.) and then print.\*

\*To change the settings, contact the RIP software sales agency.



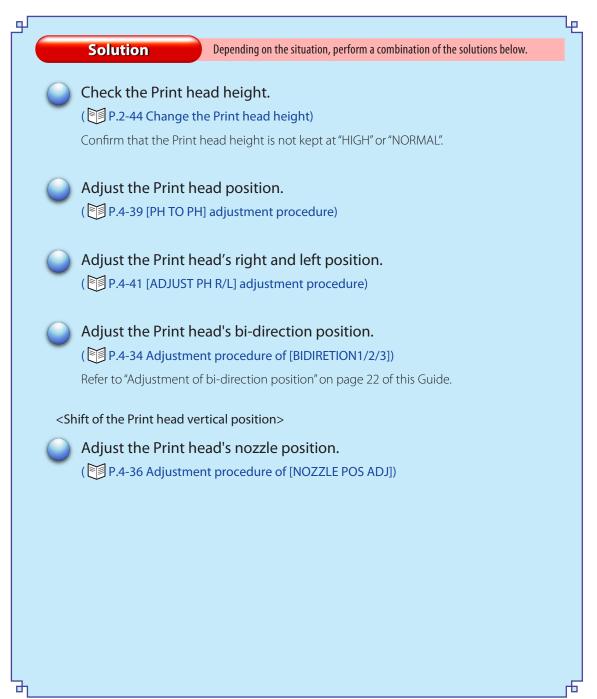
After switching IMAGE GRADIENT, be sure to adjust the bi-direction position of Print head. (See page 22 of this Guide)



# **Bleeding** pattern 2

#### Cause

- Mismatch of the Print head height
- Shift of the Print head position
- Shift of the Print head bi-direction position
- Shift of the Print head vertical position



# **Appendix Adjustment of bi-direction position**

Adjust the bi-direction position of each head. Reading the result of [BIDIRECTION1], [BIDIRECTION2] and [BIDIRECTION3] print, enter the value.

This Printer has preset bi-direction position adjustment values for major media. Basically, the adjustment is not required. But, if you notice the followings in the bi-directional print ([BIDIR]) shown in page 21 of this Guide, print the bi-directional adjustment pattern and set each of the Print head position correctly.

- bleeding (in a single color or different colors)
- bleeding of sharp lines such as register marks (in a single color or different colors)
- uneveness of mixed colors
- Transfer of the preset values are effective only when new media are registered by Windows or when the existing media information is copied by panel operation.
- **1.** Set the printer to the offline. (Press the ONLINE) key.)

↑INK MEDIA REG↓ ←MEDIA M.ADV→

**2.** Press MENU key twice to display ADJUST.

↑ PRINTER SETUP↓ ← ADJUST HEATER→

**3.** Press key and then ok key to display the adjustment pattern.

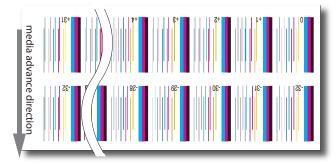
#TEST PRINT
\*NOZZLE PRINT

**4.** Press key to select [BIDIRECTION1]. Then, press OK key.

#TEST PRINT \*BIDIRECTION1

- \* When adjusting [NORMAL2] print mode, select [BIDIRECTION2] and adjusting [FINE DRAFT] print mode, select [BIDIRECTION3].
- **5.** Press οκ key. Then, the adjustment pattern in the figure shown below is printed.

#TEST PRINT \*EXECUTING



**6.** After selecting ADJUST MENU, press key to display [BIDIR ADJ1 L].

#BIDIR ADJ1 L XXXXXX #Y >+00

**7.** Press key to move the cursor and change the head color with keys.

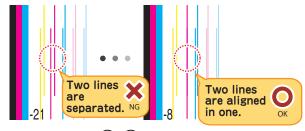
#BIDIR ADJ1 L XXXXXX #M >+00

**8.** Press **OK** key to decide the head color to be corrected and make it ready for entering the parameter.

#BIDIR ADJ1 L XXXXXX #M \*+00

**9.** In the [BIDIRECTION] patterns, enter the numeral of pattern where two lines of each color Print head are aligned in one.

Enter the number of the pattern where two lines are aligned most closely. For example, when setting the M color Print head, in "-21" in the figure to the right, two lines are separated and in "-8" two lines are aligned in one. So "-8" is the correct value.



Select the digit with  $\bigcirc$ ,  $\bigcirc$  keys and change the value with  $\bigcirc$ ,  $\bigcirc$  keys.

#BIDIR ADJ1 L XXXXXX #M >-08

**10.** Press **οκ** key.

#BIDIR ADJ1 L XXXXXX #M >-08

- **11.** Adjust [BIDIR ADJ1 R] using the same method.
- **12.** Adjust other colors using the same method.

memo	

memo